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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/099,838	NISHI ET AL.	
	Examiner	Art Unit	
	LaShanya R. Nash	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-23 and 25-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,5,7-23 and 25-28* is/are rejected.

7)☒ Claim(s) *6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to an Amendment 12 February 2007. Claims 1, 4-23 and 25-28 are presented for further consideration. Claims 1,8,13 and 22 are currently amended. Claims 2-3, and 24 are canceled.

Response to Arguments

Applicant's arguments, see *Remarks*, with respect to the anticipated rejections of amended claims 1,8, and 13 and 22 under 35 USC 103(a) have been fully considered. However, upon further consideration, a new ground of rejection is made in view of newly found prior art reference Lin et al. (US Patent 6,405, 256) as set forth below in the Office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4-5, 8-11, 13, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chueng-Hsein (European Patent Application EP 0967559), in view of Zhong ("Mulitwavelength Cross-Connects for Optical Transport Networks" [IEEE]), Rangan (US Patent 5,583,994) and Lin et al. (US

Patent 6,405,256), hereinafter referred to as Chueng-Hsein, Zhong, Rangan and Lin respectively.

In reference to claim 1, Chueng-Hsein explicitly discloses a system where cache servers are employed in order to temporarily store information during the transfer of content data between clients and provider server via interconnected networks (e.g. Internet), so as to avoid both source and network overload (abstract; paragraphs [0007]-[0008]). Chueng-Hsein further discloses:

- A data distribution system (Figure 1; paragraph [0010]-[0013]) comprising: a data distribution server (Figure 1-item 101; paragraph [0014]) for supplying data to a user side (i.e. corporate LAN; Figure 1; paragraph [0015])
- At least one access server (i.e. Figure 1-item 500) provided on the user side and transferring intended data to each user; and
- A network cache apparatus (Figure 1-items 301, 302, 303, 501) provided in a network (i.e. Internet; Figure 1) wherein said data is distributed between said data distribution server and said access server and having a cache function unit for temporarily storing said data from said data distribution server (paragraphs [0022]-[0026]), and an exchange function unit for routing the stored data to said access server corresponding to a destination user (i.e. assigning cache servers to a serve specific clients; paragraphs [0016]-[0018]), the stored data being transmitted to the access server in the absence of a congestion state, (i.e. waits for receiver acknowledgement of transmitted object; paragraphs [0023]-[0024]).

However, Chueng-Hsein fails to show the system wherein both the data distribution server and network cache apparatus and both the network cache apparatus and access server are connected via an optical cross-connect equipment forming the exchange function unit of the network cache apparatus and the data is distributed by wavelength multiplex transmission. Nonetheless, optical cross-connect equipment forming an exchange function, and distributing data by wavelength multiplex transmission were well known in the art at the time of invention, as further evidenced by Zhong. Therefore, it would have been obvious to accordingly modify the aforementioned system as disclosed by Chueng-Hsein.

In an analogous art, Zhong discloses a network wherein connections are accomplished via optical cross-connect equipment forming an exchange function unit (i.e. interchange devices; pages 1614-1617; Figures 1-9). Zhong also shows the aforementioned network wherein data is distributed by wavelength multiplex transmission (i.e. wavelength division multiplexing; pages 1613-1614; Figure 1). One of ordinary skill in the art would have readily recognized the advantages associated with accordingly modifying the aforementioned system (i.e. optical cross-connect equipment; wavelength multiplex transmission) so as to significantly improve the connectivity between the aforementioned distribution server, cache apparatus, and access server, thereby improving system efficiency (Zhong, *1.Introduction*; page 1613). However, the references fails to disclose the cache function unit storing the data for a valid term based on a distribution valid term transferred from the distribution server simultaneously with the data. Nonetheless, storing data for a valid term was well known in the art at the

time of the invention, as further evidenced by Rangan. Therefore, it would have been obvious to accordingly modify the aforementioned system as disclosed by Chueng-Hsein and Zhong.

In an analogous art, Ragan discloses a system for efficient delivery of data employing servers caching data for a selected time period (abstract). Ragan expressly discloses the cache function unit storing the data for a valid term (i.e. storage time period) based on a distribution valid term transferred from the distribution server simultaneously with the data (i.e. receiving the preselected times from users to establish time period), (column 2, line 17- column 3, line 4). One of ordinary skill in the art at the time of the invention would have been motivated to accordingly modify the system of Chueng-Hsein and Zhong so as decrease demands the on a network over which the data from the storage servers can be transmitted to the users, (Rangan; column 1, lines 65-67). However, the references fail to disclose transmitting to the access server after confirming the reception buffer of the access server is not in a congestion state. Nonetheless, congestion control was well known in the art at the time of the invention, as further evidenced by Lin. Therefore, it would have been obvious to accordingly modify the aforementioned system as disclosed by Chueng-Hsein, Zhong, and Ragan.

In an analogous art, Lin discloses a system for controlling congestion in multicast networks (abstract). Hurst further discloses transmitting to the access server (i.e. transmit downstream to client) after confirming the reception buffer (Figure 1-item 124/126; column 4, lines 11-38) of the access server is not in a congestion state (column 8, lines 22-49). One of ordinary skill in the art would have been so motivated to

accordingly modify the system so as to significantly reduce the effects of network congestion by interposing caching servers (Lin; column 2, lines 24-30).

In reference to claim 8, Chueng-Hsein explicitly discloses a data distribution server (i.e. provider host) employed in the caching system as discussed regarding claim 1. Chueng-Hsein further discloses:

- A data distribution server (Figure 1-item 101; paragraph [0014]) placed on outside of the network, receiving the data from the outside, temporarily holding this (Figure 1; paragraph [0010]-[0013]), communicating with the network cache apparatus (Figure 1-items 301, 302, 303, 501) provided in said network (i.e. Internet; Figure 1) for routing the held data to the user side (i.e. corporate LAN; Figure 1; paragraph [0015]), and distributing said data to a user (i.e. client; Figure 1-items 410, 411,412) outside said network (i.e. included in corporate LAN not Internet), (paragraphs [0016]-[0026]).

However, Chueng-Hsein fails to show the system wherein both the data distribution server and network cache apparatus and both the network cache apparatus and access server are connected via an optical cross-connect equipment forming the exchange function unit of the network cache apparatus and the data is distributed by wavelength multiplex transmission. Nonetheless, optical cross-connect equipment forming an exchange function, and distributing data by wavelength multiplex transmission were well known in the art at the time of invention, as further evidenced by Zhong. Therefore, it

would have been obvious to accordingly modify the aforementioned system as disclosed by Chueng-Hsein.

In an analogous art, Zhong discloses a network wherein connections are accomplished via optical cross-connect equipment forming an exchange function unit (i.e. interchange devices; pages 1614-1617; Figures 1-9). Zhong also shows the aforementioned network wherein data is distributed by wavelength multiplex transmission (i.e. wavelength division multiplexing; pages 1613-1614; Figure 1). One of ordinary skill in the art would have readily recognized the advantages associated with accordingly modifying the aforementioned system (i.e. optical cross-connect equipment; wavelength multiplex transmission) so as to significantly improve the connectivity between the aforementioned distribution server, cache apparatus, and access server, thereby improving system efficiency (Zhong, *1.Introduction*; page 1613). However, the references fails to disclose the cache function unit storing the data for a valid term based on a distribution valid term transferred from the distribution server simultaneously with the data. Nonetheless, storing data for a valid term was well known in the art at the time of the invention, as further evidenced by Rangan. Therefore, it would have been obvious to accordingly modify the aforementioned system as disclosed by Chueng-Hsein and Zhong.

In an analogous art, Ragan discloses a system for efficient delivery of data employing servers caching data for a selected time period (abstract). Ragan expressly discloses the cache function unit storing the data for a valid term (i.e. storage time period) based on a distribution valid term transferred from the distribution server

simultaneously with the data (i.e. receiving the preselected times from users to establish time period), (column 2, line 17- column 3, line 4). One of ordinary skill in the art at the time of the invention would have been motivated to accordingly modify the system of Chueng-Hsein and Zhong so as decrease demands the on a network over which the data from the storage servers can be transmitted to the users, (Rangan; column 1, lines 65-67). However, the references fail to disclose and the data is transmitted to the cache apparatus after confirming that a reception buffer of the cache apparatus is not in a congestion state. Nonetheless, congestion control was well known in the art at the time of the invention, as further evidenced by Lin. Therefore, it would have been obvious to accordingly modify the aforementioned system as disclosed by Chueng-Hsein, Zhong, and Ragan.

In an analogous art, Lin discloses a system for controlling congestion in multicast networks (abstract). Hurst further discloses transmitting to the cache apparatus (i.e. transmit downstream to cache) after confirming the reception buffer (Figure 1-item 124/126; column 4, lines 11-38) of the cache apparatus is not in a congestion state (column 8, lines 22-49). One of ordinary skill in the art would have been so motivated to accordingly modify the system so as to significantly reduce the effects of network congestion by interposing caching servers (Lin; column 2, lines 24-30).

In reference to claim 13, Chueng-Hsein explicitly discloses a network cache apparatus (i.e. Figure 1-items 301, 302, 303, 501) employed in the caching system as discussed regarding claim 1. Chueng-Hsein further discloses:

- A network cache apparatus (i.e. Figure 1-items 301, 302, 303, 501; paragraphs [0010]-[0013]) comprising:
- A cache function unit linked with both a data distribution server (Figure 1-item 101; paragraph [0014]) for supplying data to the user side (i.e. corporate LAN; Figure 1; paragraph [0015]) and at least one access server (i.e. Figure 1-item 500) provided on the user side and transferring intended data to users for temporarily storing said data from said data distribution server (paragraphs [0022]-[0026]), and an exchange function unit for routing the stored data to said access server corresponding to the destination user(i.e. assigning cache servers to a serve specific clients; paragraphs [0016]-[0018]), the stored data being transmitted to the access server in the absence of a congestion state, (i.e. waits for receiver acknowledgement of transmitted object; paragraphs [0023]-[0024]).

However, Chueng-Hsein fails to show the system wherein both the data distribution server and network cache apparatus and both the network cache apparatus and access server are connected via an optical cross-connect equipment forming the exchange function unit of the network cache apparatus and the data is distributed by wavelength multiplex transmission. Nonetheless, optical cross-connect equipment forming an exchange function, and distributing data by wavelength multiplex transmission were well known in the art at the time of invention, as further evidenced by Zhong. Therefore, it would have been obvious to accordingly modify the aforementioned system as disclosed by Chueng-Hsein.

In an analogous art, Zhong discloses a network wherein connections are accomplished via optical cross-connect equipment forming an exchange function unit (i.e. interchange devices; pages 1614-1617; Figures 1-9). Zhong also shows the aforementioned network wherein data is distributed by wavelength multiplex transmission (i.e. wavelength division multiplexing; pages 1613-1614; Figure 1). One of ordinary skill in the art would have readily recognized the advantages associated with accordingly modifying the aforementioned system (i.e. optical cross-connect equipment; wavelength multiplex transmission) so as to significantly improve the connectivity between the aforementioned distribution server, cache apparatus, and access server, thereby improving system efficiency (Zhong, *1.Introduction*; page 1613). However, the references fails to disclose the cache function unit storing the data for a valid term based on a distribution valid term transferred from the distribution server simultaneously with the data. Nonetheless, storing data for a valid term was well known in the art at the time of the invention, as further evidenced by Rangan. Therefore, it would have been obvious to accordingly modify the aforementioned system as disclosed by Chueng-Hsein and Zhong.

In an analogous art, Ragan discloses a system for efficient delivery of data employing servers caching data for a selected time period (abstract). Ragan expressly discloses the cache function unit storing the data for a valid term (i.e. storage time period) based on a distribution valid term transferred from the distribution server simultaneously with the data (i.e. receiving the preselected times from users to establish time period), (column 2, line 17- column 3, line 4). One of ordinary skill in the art at the

time of the invention would have been motivated to accordingly modify the system of Chueng-Hsein and Zhong so as decrease demands the on a network over which the data from the storage servers can be transmitted to the users, (Rangan; column 1, lines 65-67). However, the references fail to disclose transmitting to the access server after confirming the reception buffer of the access server is not in a congestion state. Nonetheless, congestion control was well known in the art at the time of the invention, as further evidenced by Lin. Therefore, it would have been obvious to accordingly modify the aforementioned system as disclosed by Chueng-Hsein, Zhong, and Ragan.

In an analogous art, Lin discloses a system for controlling congestion in multicast networks (abstract). Hurst further discloses transmitting to the access server (i.e. transmit downstream to client) after confirming the reception buffer (Figure 1-item 124/126; column 4, lines 11-38) of the access server is not in a congestion state (column 8, lines 22-49). One of ordinary skill in the art would have been so motivated to accordingly modify the system so as to significantly reduce the effects of network congestion by interposing caching servers (Lin; column 2, lines 24-30).

In reference to claim 4, Chueng-Hsein shows the system wherein, where there is only one network cache apparatus (Figure 1-item 501) in said network, said data distribution server is provided with a data transmitting unit for generating a packet for transmitting said data and adding a cache specifying address for specifying said network cache apparatus as a destination of transmission to the packet, and said network cache apparatus is provided with a routing unit for adding a distribution address

for setting said access server to which said packet is to be distributed from the destination information contained in said packet to the packet when detecting said cache specifying address directed to itself and transmitting this to said access server side and thereby performs the distribution of said data, (paragraphs [0010]-[0026]).

In reference to claim 5, Chueng-Hsein shows the system wherein, where there are a plurality of said network cache apparatuses (Figure 1-items 301, 302,303) inside said network, said data distribution server is provided with a data transmitting unit for generating the packet for transmitting said data and adding a cache-specifying multi-cast address for specifying a plurality of said network cache apparatuses as the destination of transmission to the packet, and each said network cache apparatus further distributes said packet to said network cache apparatus of the next stage based on the cache-specifying multi-address when detecting said cache-specifying multi-address containing the address of itself and each network cache apparatus is provided with a routing unit for adding a distribution address for setting said access server to which said packet is to be distributed from the destination information contained in said packet to the packet and transmitting this to said access server side and thereby performs the distribution of said data, (paragraphs [0010]-[0026]).

In reference to claim 9, Chueng-Hsein shows the system wherein provision is made of a data transmitting unit for generating a packet for transmitting said data and adding a cache-specifying address for specifying said network cache apparatus as the

destination of transmission to the packet and adding a cache-specifying multi-cast address for specifying a plurality of said network cache apparatuses as the destination of transmission to the packet where there are a plurality of said network cache apparatuses in said network, (i.e. assigning cache servers to serve specific clients; paragraphs [0017]-[0021]).

In reference to claim 10, Chueng-Hsein shows the system wherein said data transmitting unit is linked with a data access request receiving unit for accepting a send request of said data from a data provider or an access request of said data from the user and outputs information concerning at least a destination list of the destination of distribution of said data from the data access request receiving unit, (paragraphs [0010]-[0016]; [0022]-[0027]); and Ragan shows a valid term of the distribution together with the related data (column 2, line 17- column 3, line 4).

In reference to claim 11, Chueng-Hsein shows the system wherein provision is further made of a data storage unit for storing said data and information output from said data access request receiving unit for a certain valid term and said stored data and information are transmitted from said data transmitting unit to said network cache apparatus according to a send instruction, (paragraphs [0007]-[0013]); and Ragan shows receiving a valid term (column 2, line 17- column 3, line 4).

In reference to claim 15, Chueng-Hsein shows the system, wherein said cache function unit has a routing unit for receiving said data and information concerned with at least a distribution destination list of the data and a distribution valid term thereof from said data distribution server and controlling a distribution of the data to said access server corresponding to the user as the destination of the distribution via said exchange function unit and a data storage unit for storing the data from said routing unit for the constant valid term, (paragraphs [0017]-[0021]).

In reference to claim 16, Cheung-Hsein shows the system wherein the cache function unit has a routing unit for receiving the data and information concerned with the at least distribution list of the data from the distribution server and controlling a distribution of the data to the access server corresponding to the user as the destination of the distribution via the exchange function (paragraphs [0017]-[0021]); Ragan shows a distribution valid term and the data storage unit for storing the data from the routing unit for the valid term (column 2, line 17- column 3, line 4).

Claims 22-23, and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable as being unpatentable over Chueng-Hsein (European Patent Application EP 0967559), in view of Zhong ("Mulitwavelength Cross-Connects for Optical Transport Networks" [IEEE]) and Brendes et al. (US Patent Application Publication 2001/0049730), and Lin et al. (US Patent 6,405,256), hereinafter referred to as Chueng-Hsein, Zhong, Brendes and Lin.

In reference to claim 22, Chueng-Hsein explicitly discloses a network access server (i.e. Figure 1-item 500) employed in the caching system as discussed regarding claim 1. Chueng-Hsein further discloses:

- An access server (i.e. Figure 1-item 500) placed outside of the network (i.e. included in corporate LAN and not Internet) communicating with the network cache apparatus (i.e. Figure 1-items 301, 302, 303, 501; paragraphs [0014]-[0015]) provided in said network for receiving the data from the outside and temporarily storing this and routing the stored data to the user side, fetching said data stored in the network cache apparatus, and distributing this to the user, (paragraphs [0010]-[0013]; paragraphs [0016]-[0026]).

However, Chueng-Hsein fails to show the system wherein both the data distribution server and network cache apparatus and both the network cache apparatus and access server are connected via an optical cross-connect equipment forming the exchange function unit of the network cache apparatus and the data is distributed by wavelength multiplex transmission. Nonetheless, optical cross-connect equipment forming an exchange function, and distributing data by wavelength multiplex transmission were well known in the art at the time of invention, as further evidenced by Zhong. Therefore, it would have been obvious to accordingly modify the aforementioned system as disclosed by Chueng-Hsein.

In an analogous art, Zhong discloses a network wherein connections are accomplished via optical cross-connect equipment forming an exchange function unit (i.e. interchange devices; pages 1614-1617; Figures 1-9). Zhong also shows the

aforementioned network wherein data is distributed by wavelength multiplex transmission (i.e. wavelength division multiplexing; pages 1613-1614; Figure 1). One of ordinary skill in the art would have readily recognized the advantages associated with accordingly modifying the aforementioned system (i.e. optical cross-connect equipment; wavelength multiplex transmission) so as to significantly improve the connectivity between the aforementioned distribution server, cache apparatus, and access server, thereby improving system efficiency (Zhong, *1.Introduction*; page 1613). Although Chueng-Hsein and Zhong show substantial features of the invention, the reference fails to show the system wherein a provision is made of a congestion monitor responding unit for performing a related inquiry in response to an inquiry request of a congestion state from the network cache apparatus and returning the result to the network cache apparatus as the inquiry response. Nonetheless, congestion monitoring was well known in the art at the time of invention, as further evidenced by Brendes. Therefore, it would have been obvious for one of ordinary skill in the art to accordingly to the system as disclosed by Chueng-Hsein and Zhong.

In an analogous art, Brendes discloses a system for performing network management involving notifications of congestion or unavailability, (abstract). Brendes further discloses congestion monitor responding unit for performing a related inquiry in response to an inquiry request (i.e. congestion poll; paragraphs [0098]-[0099]) of a congestion state from the network node and returning the result to the network node as the inquiry response (i.e. congestion response message; paragraphs [0101]-[0105]). One of ordinary skill in the art would have readily recognized the advantages associated

with accordingly modifying the aforementioned system, so as to avoid spreading congestion within the network and thereby prevents transmission inefficiency, (Dravida; abstract). However, the references fail to disclose transmitting to the access server after confirming the reception buffer of the access server is not in a congestion state. Nonetheless, congestion control was well known in the art at the time of the invention, as further evidenced by Lin. Therefore, it would have been obvious to accordingly modify the aforementioned system as disclosed by Chueng-Hsein, Zhong, and Ragan.

In an analogous art, Lin discloses a system for controlling congestion in multicast networks (abstract). Hurst further discloses transmitting to the access server (i.e. transmit downstream to client) after confirming the reception buffer (Figure 1-item 124/126; column 4, lines 11-38) of the access server is not in a congestion state (column 8, lines 22-49). One of ordinary skill in the art would have been so motivated to accordingly modify the system so as to significantly reduce the effects of network congestion by interposing caching servers (Lin; column 2, lines 24-30).

In reference to claim 23, Chueng-Hsein shows the system wherein provision is made of a data access request unit linked to the data distribution server placed outside of said network and providing said data to be held by said network cache apparatus and transmitting the access request to the data distribution server when there is an access request of the data from said user with respect to the data distribution server, (paragraph [0008]; paragraphs [0010]-[0015]).

In reference to claim 25, Brendes shows the system wherein the provision is made of a data receiving unit for receiving the data transmitted from the network node when the inquiry response indicates "no congestion", (i.e. congestion response message; paragraphs [0101]-[0106]).

In reference to claim 26, Chueng-Hsein shows the system wherein provision is made of a data storage unit for storing said data received at said data receiving unit for a certain valid term, a data transmitting unit for transferring the stored data toward said user side based on a send instruction from said data access request transmitting unit, and a data distributing unit for distributing transferred data corresponding to each user, (paragraphs [0010]-[0026]).

Claims 7, 12, 14, and 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chueng-Hsein, Zhong, Rangan and Lin as applied to claims, and further in view of Brendes et al. (US Patent Application Publication 2001/0049730), hereinafter referred to as Brendes.

In reference to claim 7, 12, 14, 17, and 18, although Chueng-Hsein, Zhong, Rangan and Lin show substantial features of the invention, the reference fails to show the system wherein said network cache apparatus is provided with a second congestion monitor indicating unit for transmitting a second inquiry request command to the access server and inquiring about the congestion state thereof when said data is received from said data distribution server and the data must be transmitted to said access server,

said access server is provided with a second congestion monitor responding unit for receiving said second inquiry request command, inquiring about the congestion state thereof (i.e. congestion poll; paragraphs [0098]-[0099]), and returning the result as a second inquiry response to said second congestion monitor indicating unit, and said network cache apparatus transmits said data when said second inquiry response indicates "no congestion". Nonetheless, congestion monitoring was well known in the art at the time of invention, as further evidenced by Brendes. Therefore, it would have been obvious for one of ordinary skill in the art to accordingly to the system as disclosed by Chueng-Hsein, Zhong, Rangan and Lin.

In an analogous art, Brendes discloses a system for performing network management involving notifications of congestion or unavailability, (abstract). Brendes further discloses a congestion monitor indicating unit for transmitting a second inquiry request command to the access server and inquiring about the congestion state thereof when said data is received from said data distribution server and the data must be transmitted to said access server, said access server is provided with a second congestion monitor responding unit for receiving said second inquiry request command, inquiring about the congestion state thereof, and returning the result as a second inquiry response to said second congestion monitor indicating unit, and said network node apparatus transmits said data when said second inquiry response indicates "no congestion", (i.e. congestion response message; paragraphs [0101]-[0106]). One of ordinary skill in the art would have readily recognized the advantages associated with

accordingly modifying the aforementioned system, so as to avoid spreading congestion within the network and thereby prevents transmission inefficiency, (Dravida; abstract).

In reference to claim 19 although Chueng-Hsein, Zhong, Rangan and Lin show substantial features of the invention, the reference fails to show the system wherein routing unit creates a routing table listing a group of addresses of the distribution destinations based on said information and specifies said user as the destination of the distribution according to the routing table. However, routing tables were well known in the art at the time of invention, as further evidenced by Brendes. Therefore, it would have been obvious for one of ordinary skill in the art to accordingly to the system as disclosed by Chueng-Hsein, Zhong Ragan and Lin.

In an analogous art, Brendes discloses a system for performing network management involving notifications of congestion or unavailability, (abstract). Brendes further discloses congestion monitor creates a routing table, (link selector table; paragraph [0096]), and subsequently employed to route data to a selected non-congested path (i.e. employ an alternate route (paragraphs [0105]-[0106]). One of ordinary skill in the art would have readily recognized the advantages associated with accordingly modifying the aforementioned system, so as to relieve potential congestion on a network by routing portions of traffic on congested primary paths onto predefined alternate paths, (Dravida; abstract).

In reference to claim 20, Chueng-Hsein shows the system wherein said cache function unit has a path setting request unit, and the path setting request unit performs the route setting toward said user as the destination of distribution specified according to said routing table with respect to said exchange function unit, (paragraphs [0017]-[0026]).

In reference to claim 21, Chueng-Hsein shows the system wherein said path setting request unit selectively performs said route setting with respect to the access server (paragraph [0008]) for which said inquiry response indicates "no congestion" among a plurality of said access servers (paragraphs [0017]-[0026]); and Brendes shows that system prohibits (i.e. alternate path) the transfer of said data to be distributed to the access server from said data distributing unit with respect to an access server for which said inquiry response does not indicate "no congestion", (paragraphs [0101]-[0106]).

Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chueng-Hsein, Zhong, Rangan, and Lin as applied to claim 1 above, and further in view of Dugan et al. (US Patent 6,425,005), hereinafter referred to as Dugan.

In reference to claim 27, although Chueng-Hsein, Zhong, Rangan and Lin show substantial features of the invention, the reference fails to show the system giving said cache function unit a duplex configuration, having each of an active cache function unit

and a standby cache function unit constantly execute transfer of a monitor packet with said exchange function unit, and, when finding an abnormality in said active cache function unit monitored by the monitor packet, switching to said standby cache function unit to continue the distribution of said data. Nonetheless, these limitations were well known in the art at the time of invention, as further evidenced by Dugan. Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to accordingly modify the system as disclosed by Chueng-Hsein, Zhong, Rangan and Lin.

In an analogous art, Dugan discloses an apparatus of managing local resources at service nodes in an intelligent network, (abstract). Dugan further shows the apparatus comprises a node cache, wherein the cache function unit has a duplex configuration (i.e. two caches; Figure 12(b)), having each of an active cache function unit (i.e. hot cache; Figure 12(b)-item 771a) and a standby cache function unit (i.e. standby cache; Figure 12(b)-item 771b) constantly execute transfer of a monitor packet with said exchange function unit, and, when finding an abnormality in said active cache function unit monitored by the monitor packet, switching to said standby cache function unit to continue the distribution of said data, (column 25, lines 28-65). One of ordinary skill in the art would have readily recognized the advantages associated with accordingly modifying the aforementioned system, so as to provide redundancy thereby supporting continued caching functionality in the event of a cache unit malfunction, (Dugan column 40-65).

In reference to claim 28, although Chueng-Hsein, Zhong, Rangan and Lin show substantial features of the invention, the reference fails to show the system wherein, when there are three or more network cache apparatuses inside said network, all network cache apparatuses are made able to set two or more transmission lines connected to two or more other network cache apparatuses, a failure monitor means for monitoring for failure of a transmission line is provided in said exchange function unit in each said network cache apparatus, and, when detecting the occurrence of said failure by the failure monitor means, the related failure transmission line is switched to another transmission line and the distribution of said data is continued. Nonetheless, these limitations were well known in the art at the time of invention, as further evidenced by Dugan. Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to accordingly modify the system as disclosed by Chueng-Hsein and Zhong.

In an analogous art, Dugan discloses an apparatus of managing local resources at service nodes in an intelligent network, (abstract). Dugan further shows the apparatus comprises a node cache, wherein monitoring for failure of a transmission line (e.g. checks to see if still up and functioning) is provided in said exchange function unit in each said network cache apparatus, and, when detecting the occurrence of said failure by the failure monitor means, the related failure transmission line is switched to another transmission line (e.g. switches from hot cache to standby cache) and the distribution of said data is continued, (column 25, lines 28-65). One of ordinary skill in the art would have readily recognized the advantages associated with accordingly modifying the

aforementioned system, so as to provide redundancy thereby supporting continued caching functionality in the event of a cache unit malfunction, (Dugan column 40-65).

Allowable Subject Matter

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Examiner notes that claim 6 is directed toward the data distribution system wherein the distribution server is provided a congestion monitor indicating unit and the network cache apparatus is provided with a congestion monitor responding unit. Examiner asserts that these limitations of claim 6 inter alia, are a non-obvious modification to the teachings of the prior art of record, and thusly are patentably distinct over the aforementioned prior art.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaShanya R Nash whose telephone number is (571) 272-3957. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LaShanya Nash
Art Unit, 2153
April 30, 2007

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